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Message:

Transmitted herewith:

- Transmittal Document; and
- Appeal Brief.

Re: Application No.: **09/895,231**
Attorney Docket No: **AUS920010286US1**

Date: Tuesday, September 20, 2005

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: **Koelle et al.**

Serial No.: **09/895,231**

Filed: **June 29, 2001**

For: **Decentralized, Self-Regulating System for Automatically Discovering Optimal Configurations in a Failure-Rich Environment**

Group Art Unit: **2167**

Examiner: **Pannala, Sathyanaraya R.**

Attorney Docket No.: **AUS920010286US1**

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By: Amelia C. Turner
Amelia C. Turner

TRANSMITTAL DOCUMENT

Commissioner for Patents
P.O. Box 1450
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Sir:
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- Appeal Brief (37 C.F.R. 41.37)

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Respectfully submitted,

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Docket No. AUS920010286US1 ***PATENT***

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By: Amelia C. Turner
Amelia C. Turner

09/22/2005 AKELECH1 00000012 090447 09895231

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APPEAL BRIEF (37 C.F.R. 41.37)

This brief is in furtherance of the Notice of Appeal, filed in this case on July 22, 2005.

The fees required under § 41.20(B)(2), and any required petition for extension of time for filing this brief and fees therefore, are dealt with in the accompanying TRANSMITTAL OF APPEAL BRIEF.

~~09/21/2005 AKELECH1 00000009 090447 09895231~~

~~01 FC:1401 500.00 DA~~

REAL PARTY IN INTEREST

The real party in interest in this appeal is the following party: International Business Machines Corporation.

RELATED APPEALS AND INTERFERENCES

With respect to other appeals or interferences that will directly affect, or be directly affected by, or have a bearing on the Board's decision in the pending appeal, there are no such appeals or interferences.

STATUS OF CLAIMS

A. TOTAL NUMBER OF CLAIMS IN APPLICATION

Claims in the application are: 1-29

B. STATUS OF ALL THE CLAIMS IN APPLICATION

1. Claims canceled: NONE
2. Claims withdrawn from consideration but not canceled: NONE
3. Claims pending: 1-29
4. Claims allowed: NONE
5. Claims rejected: 1-29
6. Claims objected to: NONE

C. CLAIMS ON APPEAL

The claims on appeal are: 1-29

STATUS OF AMENDMENTS

The claims have not been amended.

SUMMARY OF CLAIMED SUBJECT MATTER

Independent claim 1:

The presently claimed invention provides a method for managing a set of data by a distributed set of services. The present invention organizes the set of data into a plurality of related sets of data and assigning, by a set of services, management of a related set of data to a service within the distributed set of services based on optimization criteria. See specification, page 11, line 21, to page 14, line 3; page 16, lines 1-17; page 20, lines 15-17. The present invention transfers management of the related set of data managed by a failed service to another service within the distributed set of services. See specification, page 17, line 1, to page 21, line 2.

Independent claim 6:

The presently claimed invention provides a method for managing a set of data by a distributed set of services. The present invention organizes the set of data into a plurality of related sets of data and assigning, by a set of services, management of a related set of data to a service within the distributed set of services based on optimization criteria. See specification, page 11, line 21, to page 14, line 3; page 16, lines 1-17; page 20, lines 15-17. The present invention queries management of the data within a related set of data responsive to an additional service joining the distributed set of services. The present invention assigns management of a related set of data to the additional service based on the optimization criteria. See specification, page 16, lines 18-29; page 21, line 3, to page 22, line 29.

Independent claims 10:

The presently claimed invention provides a data processing system for managing a set of data by a distributed set of services. The present invention provides a system bus **206, 306**, a memory **209, 232, 304, 324, 326, 328, 330, 332**, and a processor **202, 204, 320**. The memory includes a set of instructions and is functionally connected to the system bus. The processing unit is functionally connected to the system bus and executes the set of instructions. See specification, page 7, line 13, to page 10, line 30. The present invention organizes the set of data into a

plurality of related sets of data and assigns, by a set of services, management of a related set of data to a service within the distributed set of services based on optimization criteria. See specification, page 11, line 21, to page 14, line 3; page 16, lines 1-17; page 20, lines 15-17. The present invention transfers management of the related set of data managed by a failed service to another service within the distributed set of services. See specification, page 17, line 1, to page 21, line 2.

Independent claim 11:

The presently claimed invention provides a data processing system for managing a set of data by a distributed set of services. The present invention provides a system bus **206, 306,** a memory **209, 232, 304, 324, 326, 328, 330, 332,** and a processor **202, 204, 320**. The memory includes a set of instructions and is functionally connected to the system bus. The processing unit is functionally connected to the system bus and executes the set of instructions. See specification, page 7, line 13, to page 10, line 30. The present invention organizes the set of data into a plurality of related sets of data and assigning, by a set of services, management of a related set of data to a service within the distributed set of services based on optimization criteria. See specification, page 11, line 21, to page 14, line 3; page 16, lines 1-17; page 20, lines 15-17. The present invention queries management of the data within a related set of data responsive to an additional service joining the distributed set of services. The present invention assigns management of a related set of data to the additional service based on the optimization criteria. See specification, page 16, lines 18-29; page 21, line 3, to page 22, line 29.

Independent claims 12:

The presently claimed invention provides a data processing system for managing a set of data by a distributed set of services. The present invention organizes the set of data into a plurality of related sets of data and assigning, by a set of services, management of a related set of data to a service within the distributed set of services based on optimization criteria. See specification, page 11, line 21, to page 14, line 3; page 16, lines 1-17; page 20, lines 15-17. The present invention transfers management of the related set of data managed by a failed service to another service within the distributed set of services. See specification, page 17, line 1, to page 21, line

2. The means recited in independent claim 12, as well as dependent claims 13-16, may be data processing hardware within server **200**, client **300**, and combinations thereof, as described in the specification at page 7, line 13, to page 10, line 30, operating under control of software performing with the functionality described in the specification at page 17, line 1, to page 21, line 2, or equivalent.

Independent claim 17:

The presently claimed invention provides a data processing system for managing a set of data by a distributed set of services. The present invention organizes the set of data into a plurality of related sets of data and assigning, by a set of services, management of a related set of data to a service within the distributed set of services based on optimization criteria. See specification, page 11, line 21, to page 14, line 3; page 16, lines 1-17; page 20, lines 15-17. The present invention queries management of the data within a related set of data responsive to an additional service joining the distributed set of services. The present invention assigns management of a related set of data to the additional service based on the optimization criteria. See specification, page 16, lines 18-29; page 21, line 3, to page 22, line 29. The means recited in independent claim 12, as well as dependent claims 13-16, may be data processing hardware within server **200**, client **300**, and combinations thereof, as described in the specification at page 7, line 13, to page 10, line 30, operating under control of software performing with the functionality described in the specification at page 21, line 3, to page 22, line 29, or equivalent.

Independent claim 21:

The presently claimed invention provides a computer program product for managing a set of data by a distributed set of services. The present invention organizes the set of data into a plurality of related sets of data and assigning, by a set of services, management of a related set of data to a service within the distributed set of services based on optimization criteria. See specification, page 11, line 21, to page 14, line 3; page 16, lines 1-17; page 20, lines 15-17. The present invention transfers management of the related set of data managed by a failed service to another service within the distributed set of services. See specification, page 17, line 1, to page 21, line 2. A person having ordinary skill in the art would be able to derive computer instructions on a

computer readable medium given **Figure 6** and the corresponding description at page 17, line 1, to page 21, line 2, or equivalent.

Independent claim 26:

The presently claimed invention provides a computer program product for managing a set of data by a distributed set of services. The present invention organizes the set of data into a plurality of related sets of data and assigning, by a set of services, management of a related set of data to a service within the distributed set of services based on optimization criteria. See specification, page 11, line 21, to page 14, line 3; page 16, lines 1-17; page 20, lines 15-17. The present invention queries management of the data within a related set of data responsive to an additional service joining the distributed set of services. The present invention assigns management of a related set of data to the additional service based on the optimization criteria. See specification, page 16, lines 18-29; page 21, line 3, to page 22, line 29. A person having ordinary skill in the art would be able to derive computer instructions on a computer readable medium given **Figure 7** and the corresponding description at page 21, line 3, to page 22, line 29, or equivalent.

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The grounds of rejection on appeal are as follows:

I. Claims 1-29 are rejected under 35 U.S.C. § 102(e) as being allegedly anticipated by *Kenner et al.* (U.S. Patent No. 6,496,856).

ARGUMENT

I. 35 U.S.C. § 102, Alleged Anticipation of Claims 1-29

The Final Office Action rejects claims 1-29 under 35 U.S.C. § 102(e) as being allegedly anticipated by *Kenner et al.* (U.S. Patent No. 6,496,856 B1). This rejection is respectfully traversed.

IA. 35 U.S.C. § 102, Alleged Anticipation of Claims 1-5, 10, 12-16, and 21-25

As to claim 1, the Final Office Action states:

> As per independent claim 1, Kenner teaches a video clip storage and retrieval system for user to receive comprehensive data collected from one or more databases by request from a user's multimedia computer. The user request is transmitted to the user's primary index manager via a local storage and retrieval unit (SRU) (col. 3, lines 6-10 and 34-37). Kenner teaches the claimed step of "organizing the set of data into a plurality of related sets of data" as the SRU command logic sees to the duplication of popular videos on alternate SRUs 26. It also places copies of video segments on SRUs geographically closer to the user most interest in those videos. Duplication of data is done during the non-peak periods of the system (Fig. 1, col. 8, lines 27-32). Further, Kenner teaches the claimed step of "assigning, by a set of services, management of a related set of data to a service within the distributed set of services based on an optimization criteria" as the primary index manager (PIM) determines whether it is managing an extended SRU 26 based on searching through audio-visual data index database to identify the video clips that have been accessed most frequently (FDVs) (the optimization criteria is the most frequently accessing compared a predetermined value.) The video clips are duplicated on the identified extended SRUs. (Fig. 1, col. 8, lines 35-47). Finally, Kenner teaches the claimed step of "responsive to failure of a service within the distributed set of services, transferring management of the related set of data managed by the failed service to another service within the distributed set of services" as whenever an SRU fails to deliver the requested video clip, the DSI 30 increments the SRU under-run counter for that SRU and eventually communicates this information to the PIM 22. The PIM 22 directs further requests to alternate SRUs for video clip information (Fig. 1, col. 14, lines 20-28).

Final Office Action dated April 25, 2005. Appellants respectfully disagree. *Kenner* teaches a video storage and retrieval system. Requests for video clips are received by a local primary index manager (PIM). A local storage and retrieval unit (SRU) provides temporary storage for the user's most requested video clips. The local SRU is polled for the requested video clip. If

the requested video clip is not stored at the local SRU, then a data sequencing interface (DSI) retrieves the video clip from an extended and remote SRU and transmits the video clip to the local SRU. See *Kenner*, col. 3, lines 21-64. The PIM records how often particular video clips are requested and determines whether video clips should be duplicated at a particular local SRU. See *Kenner*, col. 4, lines 13-19. Thus, *Kenner* teaches a storage and retrieval system in which data is duplicated to whichever SRU needs the data. There is no organizing of data into a plurality of related sets of data. There is no optimization as every SRU that needs a video clip has the video clip transmitted to it for duplication. Also, there is no provision for when an SRU fails.

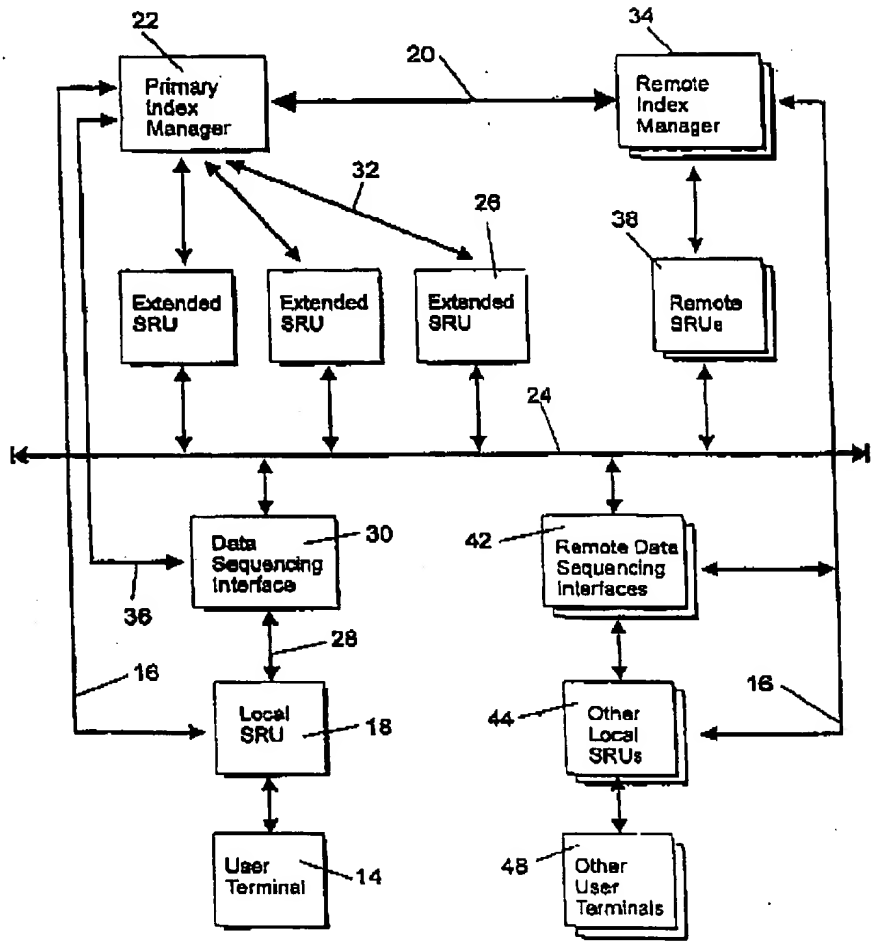
In contradistinction, the present invention manages a set of data by a distributed set of services. Claim 1, for example, recites:

> 1. A method of managing a set of data by a distributed set of services, comprising the steps of:
>
> organizing the set of data into a plurality of related sets of data;
>
> assigning, by a set of services, management of a related set of data to a service within the distributed set of services based on an optimization criteria; and
>
> responsive to failure of a service within the distributed set of services, transferring management of the related set of data managed by the failed service to another service within the distributed set of services.

The set of services organizes the set of data into a plurality of related sets of data and assigns management of a related set of data to services within the distributed set of services based on optimization criteria. *Kenner* fails to teach or suggest organizing video clips into related sets. Also, *Kenner* fails to teach assignment of data sets based on optimization criteria. *Kenner* merely duplicates individual video clips to whichever SRU needs them.

Furthermore, the present invention transfers management of a related set of data managed by a failed service to another service within the distributed set of services. The Final Office Action alleges that *Kenner* teaches this feature in Figure 1 and at col. 14, lines 20-28. Figure 1 is as shown below:

FIGURE 1



The cited portion of *Kenner* states:

> Whenever an SRU fails to deliver the requested video clip, the DSI 30 increments the SRU under-run counter for that SRU and eventually communicates this information to the PIM 22. If the SRU under-run count exceeds a predetermined threshold value (communicated to the DSI 30 upon creation), the PIM 22 directs further requests away from this affected SRU by having the DSI 30 query alternate SRUs for the video clip information. In the event that the video clip is only stored at this location, then a delay will be encountered as the DSI 30 waits for the video information to be downloaded. The PIM 22 will also direct that the number of FDVs be decremented for this affected extended SRU 26.

Kenner, col. 14, lines 20-32. Thus, *Kenner* relies on individual video clips being duplicated. *Kenner* does not teach assigning management of a video clip to another SRU. If a request is handled by another SRU due to failure of a SRU, the other SRU already manages the video clip. There is no change in the assignment of management. In fact, as seen above, *Kenner* teaches that if a video clip is managed by only one SRU and that SRU fails, then a delay will be inevitable. *Kenner* does not teach what happens if a SRU fails to deliver the video clip altogether. Even if *Kenner* did teach that management of a video clip were transferred to another SRU, which it does not, *Kenner* still fails to teach assignment of a related set of video clips. Rather, *Kenner* teaches handling video clips on a one-by-one basis.

Furthermore, *Kenner* does not teach that assignment of management of data sets is changed based on optimization criteria. In fact, the Final Office Action alleges that *Kenner* teaches an optimization criterion that is "the most frequently accessing compared a predetermined value." However, *Kenner* does not teach that the same optimization criteria are used to assign a data set to another SRU when an SRU fails. In fact, *Kenner* only teaches that a request for a video clip may be handled by another SRU only if that other SRU already manages the same video clip.

The Final Office Action argues that the present specification indicates that there is no specific technique for optimization and that the claims read on any optimization technique. Appellants agree that the claims recite "an optimization criteria" and should not be limited to any specific optimization criteria. However, the Final Office Action then concludes that the optimization technique used by *Kenner* is inherent. Appellants respectfully disagree. The Final Office Action misapplies the concept of "inherent" anticipation. Section 102 of Title 35 deals with novelty and loss of patent rights. An invention is said to be "anticipated" when it is squarely described or disclosed in a single reference as identified from one of the categories of 35 U.S.C. § 102, commonly referred to as "prior art." Express anticipation occurs when the invention is expressly disclosed in the prior art, patent, or publication.

In some cases, however, when the claimed invention is not described *in haec verba*, the "doctrine of inherency" is relied on to establish anticipation. Under the principles of inherency, a claim is anticipated if a structure in the prior art necessarily functions in accordance with the limitations of a process or method claim. *In re King*, 801 F.2d 1324, 231 U.S.P.Q. 136 (Fed. Cir.

1986). A prior art reference that discloses all of a patent's claim limitations anticipates that claim even though the reference does not expressly disclose the "inventive concept" or desirable property the patentee discovered. *Verdgaal Brothers, Inc. v. Union Oil Company of California*, 814 F.2d 628, 2 U.S.P.Q.2d 1051, (Fed. Cir. 1987). It suffices that the prior art process inherently possessed at that property. *Id.* Mere possibilities or even probabilities, however, are not enough to establish inherency. The missing claimed characteristics must be a "natural result" flowing from what is disclosed. *Continental Can Co. v. Monsant Co.*, 948 F.2d 1264, 20 U.S.P.Q.2d 1746 (Fed. Cir. 1991). Unstated elements in a reference are inherent when they exist as a "matter of scientific fact." *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 7 U.S.P.Q.2d 1057 (Fed. Cir.), *cert. denied*, 488 U.S. 892 (1988) and *Hughes Aircraft Co. v. United States*, 8 U.S.P.Q.2d 1580 (Ct. Cl. 1988). Otherwise, the invention is not inherently anticipated.

In the present case, the assertion that these elements are present can be made only through the use of Appellants' disclosure as a template to fill in the missing elements. *Kenner* simply teaches that a video clip is sent to a particular SRU responsive to a user requesting the video clip. *Kenner* does not teach that video clips are organized into related sets or that management of a related set is assigned to a SRU based on optimization criteria. The Final Office Action proffers no explanation as to why management of a set of video clips is assigned to an SRU based on an optimization criteria is necessarily taught or a matter of scientific fact. In *Kenner*, a video clip is assigned to whatever SRU is local to the requesting user. Because the Final Office Action merely concludes that the missing element is inherent without sufficient explanation, the Final Office Action fails to establish a *prima facie* case of anticipation for claim 1, for example.

The applied reference fails to teach or suggest each and every claim limitation. Therefore, *Kenner* does not anticipate claim 1. Independent claims 10, 12, and 21 recite subject matter addressed above with respect to claim 1 and are allowable for similar reasons. Since claims 2-5, 13-16, and 22-25 depend from claims 1, 12, and 22, the same distinctions between *Kenner* and the invention recited in claims 1, 12, and 22 apply for these claims. Additionally, claims 2-5, 13-16, and 22-25 recite other additional combinations of features not suggested by the reference.

Furthermore, *Kenner* does not teach, suggest, or give any incentive to make the needed changes to reach the presently claimed invention. *Kenner* actually teaches away from the presently claimed invention because it teaches duplicating data as needed, as opposed to managing assignment of data sets by data services based on an optimization criteria and re-assigning data sets responsive to failure of a service or an added service, as in the presently claimed invention. Absent the Office Action pointing out some teaching or incentive to implement *Kenner* to assign management of data sets based on optimization criteria, one of ordinary skill in the art would not be led to modify *Kenner* to reach the present invention when the reference is examined as a whole. Absent some teaching, suggestion, or incentive to modify *Kenner* in this manner, the presently claimed invention can be reached only through an improper use of hindsight using Appellants' disclosure as a template to make the necessary changes to reach the claimed invention.

Therefore, Appellants respectfully request that the rejection of claims 1-5, 10, 12-16, and 21-25 under 35 U.S.C. § 102(e) not be sustained.

IA(1). <u>35 U.S.C. § 102, Alleged Anticipation of Claims 2, 13, and 22</u>

With respect to claim 2, the Final Office Action states:

> As per dependent claim 2, Kenner teaches the claimed step of "the optimization criteria is based on location of the service within the distributed set of services" as the Audio-visual data index database is searched to determine most frequently accessed SRUs in comparison to predetermined value. Those extended SRUs are selected for the duplication or transferal. The selected SRUs are evaluated to whether they can accept duplicate copy of the video clip. If so, the FDV is duplicated on the identified extended SRU 26 (Fig. 1, col. 8, lines 38-47).

Final Office Action dated April 25, 2005. Appellants generally agree with the characterization of the teachings of *Kenner* in that *Kenner* does teach that video clips are duplicated based on whether the video clip is most frequently requested. However, the Final Office Action proffers no explanation as to how duplicating video clips based on the most frequently requested is somehow equivalent to assigning management of data sets by data services based on location of the services. In other words, a most frequent criterion is not the same as a location criterion. Appellants submit that *Kenner*, in fact, does not teach or fairly suggest assigning management of data sets by data services based on location of the data services. The Final Office Action does not establish a *prima facie* case of anticipation. Claims 13 and 22 recite subject matter addressed

above with respect to claim 2 and are allowable for similar reasons.

Therefore, Appellants respectfully request that the rejection of claims 2, 13, and 22 under 35 U.S.C. § 102(e) not be sustained.

IA(2). 35 U.S.C. § 102, Alleged Anticipation of Claims 3, 14, and 23

With respect to claim 3, the Final Office Action states:

> As per claim 3, Kenner teaches the claimed step of "detecting the failed service by a set of remaining services within the distributed set of services" as whenever an SRU fails to deliver the requested video clip, the DSI 30 increments the SRU under-run counter for that SRU and eventually communicates this information to the PIM 22 (Fig. 2, col. 14, lines 20-23). Further, Kenner teaches the claimed step of "examining, by the set of remaining services within the distributed set of services, the related set of data managed by the failed service" as if the SRU under-run count exceeds a predetermined threshold value the PIM 32 directs further requests away from this affected SRU by the DSI 30 query alternate SRUs for the video clip information (Fig. 1, col. 14, lines 23-28).

Final Office Action dated April 25, 2005. Appellants generally agree with the characterization of the teachings of *Kenner* in that *Kenner* does teach an under-run count and directing requests to other SRUs. However, the Final Office Action proffers no explanation as to why an under-run count and directing requests to other SRUs is somehow equivalent to examining by the set of remaining services the related set of data managed by a failed service. Appellants submit that *Kenner*, in fact, does not teach or fairly suggest a distributed set of data services wherein remaining data services examine data sets managed by a failed data service. The Final Office Action does not establish a *prima facie* case of anticipation. Claims 14 and 23 recite subject matter addressed above with respect to claim 3 and are allowable for similar reasons.

Therefore, Appellants respectfully request that the rejection of claims 3, 14, and 23 under 35 U.S.C. § 102(e) not be sustained.

IA(3). 35 U.S.C. § 102, Alleged Anticipation of Claims 4, 15, and 24

With respect to claim 4, the Final Office Action states:

> As per dependent claim 4, Kenner teaches the claimed step of "determining whether data within the related set of data are at the same location as a service within the set of remaining services" as in the event that the video clip is only stored at this location, then a delay will be encountered as the DSI 30 waits for the video information to be downloaded. The PIM 22 will also direct that the

> number of FDVs to be decremented for this affected extended SRU 26 (Fig. 1, col. 14, lines 28-32). Further, Kenner teaches the claimed step of "responsive to data within the related set of data at the same location as a service within the set of remaining services, attaching the data to the service" as the SRU under-run counter parameter identifies the location of over-accessed SRUs, audio-visual data will be moved or copied from heavily loaded SRUs to lightly loaded SRUs in an effort to distribute or flatten SRU demand (Fig. 1, col. 14, lines 33-38).

Final Office Action dated April 25, 2005. Again, the Final Office Action characterizes what the reference teaches and then concludes that the claimed features are taught. Appellants submit that *Kenner*, in fact, does not teach or fairly suggest determining whether data within the related set of data are at the **same location** as a service within the set of remaining services. The Final Office Action merely cites seemingly arbitrary portions of the reference and baldly asserts that the claimed features are taught with no analysis as to why the teachings are somehow equivalent. Therefore, the Final Office Action fails to establish a *prima facie* case of anticipation. Claims 15 and 24 recite subject matter addressed above with respect to claim 4 and are allowable for similar reasons.

Therefore, Appellants respectfully request that the rejection of claims 4, 15, and 24 under 35 U.S.C. § 102(e) not be sustained.

IB. 35 U.S.C. § 102, Alleged Anticipation of Claims 6-9, 11, 17-20, and 26-29

With respect to claim 6, the Final Office Action states:

> As per independent claim 6, Kenner teaches a video clip storage and retrieval system for user to receive comprehensive data collected from one or more databases by request from a user's multimedia computer. The user request is transmitted to the user's primary index manager via a local storage and retrieval unit (SRU) (col. 3, lines 6-10 and 34-37). Kenner teaches the claimed step of "organizing the set of data into a plurality of related sets of data" as the SRU command logic sees to the duplication of popular videos on alternate SRUs 26. It also places copies of video segments on SRUs geographically closer to the user most interest in those videos. Duplication of data is done during the non-peak periods of the system (Fig. 1, col. 8, lines 27-32). Further, Kenner teaches the claimed step of "assigning, by a set of services, management of a related set of data to a service within the distributed set of services based on an optimization criteria" as the primary index manager (PIM) determines whether it is managing an extended SRU 26 based on searching through audio-visual data index database to identify the video clips that have been accessed most frequently (FDVs) (the optimization criteria is the most frequently accessing compared a predetermined value). The video clips are duplicated on the

> identified extended SRUs. (Fig. 1, col. 8, lines 35-47). Further, Kenner teaches the claimed step of "responsive to an additional service joining the distributed set of services, querying management of the data within the related sets of data" as the SRU under-run counter parameter identifies the location of over-accessed SRUs, audio-visual data will be moved or copied from heavily loaded SRUs to lightly loaded SRUs in an effort to distribute or flatten SRU demand (Fig. 1, col. 14, lines 33-38). Finally, Kenner teaches the claimed step of "assigning management of a related set of data to the additional service within the distributed set of services based on the optimization criteria" as the SRU under-run counter parameter identifies the location of over-accessed SRUs, audio-visual data will be moved or copied from heavily loaded SRUs to lightly loaded SRUs in an effort to distribute or flatten SRU demand (Fig. 1, col. 14, lines 33-38).

Final Office Action dated April 25, 2005. Appellants respectfully disagree. The cited portion of *Kenner* states:

> In addition, since the SRU under-run count parameter identifies the location of "over-accessed" SRUs, audio-visual data will be moved or copied from these heavily loaded SRUs to more lightly loaded SRUs (based on their under-run levels), in an effort to distribute or flatten SRU demand. This load management process will occur during off-peak hours. The SRUs selected for copies or transferal of data will be identified from video usage information obtained from the "Audio-Visual Access List" located on the PIM 22.

Kenner, col. 14, lines 33-42. *Kenner* does indeed teach an under-run count parameter that identifies the location of over-accessed SRUs. *Kenner* does indeed teach that data may be moved or copied from heavily loaded SRUs to more lightly loaded SRUs. *Kenner* does indeed teach that load management occurs during off-peak hours. However, *Kenner* does not teach or fairly suggest responsive to an additional service joining the distributed set of services, querying management of the data within the related sets of data, as alleged in the Final Office Action. In no way is an under-run count parameter equivalent to a data service being added to a distributed set of data services.

The Final Office Action accurately characterizes the teachings of the reference, but fails to proffer any analysis as to why the teachings are somehow related to the claimed invention, other than to merely make some unexplained association between the teachings and the claim limitations. For example, the Final Office Action states that *Kenner* teaches organizing the set of data into a plurality of related sets of data because it teaches that the SRU command logic sees to the duplication of popular videos on alternate SRUs. However, the Final Office Action does not

explain why one anticipates the latter anticipates the former. Similarly, the Final Office Action states that *Kenner* teaches querying management of the data within the related sets of data responsive to an additional service joining the distributed set of services because it teaches that the SRU under-run counter parameter identifies the location of over-accessed SRUs and that audio-visual data will be moved or copied from heavily loaded SRUs to lightly loaded SRUs. Again, no explanation of why this amounts to anticipation is provided. Thus, the Final Office Action fails to establish a *prima facie* case of anticipation for claim 6, for example.

The applied reference fails to teach or suggest each and every claim limitation. Therefore, *Kenner* does not anticipate claim 6. Independent claims 11, 17, and 26, as well as dependent claims 5, 16, and 25, recite subject matter addressed above with respect to claim 6 and are allowable for similar reasons. Since claims 7-9, 18-20, and 27-29 depend from claims 6, 17, and 26, the same distinctions between *Kenner* and the invention recited in claims 6, 17, and 26 apply for these claims. Additionally, claims 7-9, 18-20, and 27-29 recite other additional combinations of features not suggested by the reference.

Therefore, Appellants respectfully request that the rejection of claims 6-9, 11, 17-20, and 26-29 under 35 U.S.C. § 102(e) not be sustained.

IB(1). 35 U.S.C. § 102, Alleged Anticipation of Claims 7, 18, and 27

With respect to claim 7, Applicants generally agree with the characterization of the teachings of *Kenner* in that *Kenner* does teach that video clips are duplicated based on whether the video clip is most frequently requested. However, the Final Office Action proffers no explanation as to how duplicating video clips based on the most frequently requested is somehow equivalent to assigning management of data sets by data services based on location of the services. Appellants submit that *Kenner*, in fact, does not teach or fairly suggest assigning management of data sets by data services based on location of the data services. The Final Office Action does not establish a *prima facie* case of anticipation. Claims 18 and 27 recite subject matter addressed above with respect to claim 7 and are allowable for similar reasons.

Therefore, Appellants respectfully request that the rejection of claims 7, 18, and 27 under 35 U.S.C. § 102(e) not be sustained.

IB(2). 35 U.S.C. § 102, Alleged Anticipation of Claims 8, 19, and 28

With respect to claim 8, Appellants generally agree with the characterization of the teachings of *Kenner* in that *Kenner* does teach an under-run count and directing requests to other SRUs. However, the Final Office Action proffers no explanation as to why an under-run count and directing requests to other SRUs is somehow equivalent to examining by the set of remaining services the related set of data managed by a failed service. Appellants submit that *Kenner*, in fact, does not teach or fairly suggest a distributed set of data services wherein remaining data services examine data sets managed by a failed data service. The Final Office Action does not establish a *prima facie* case of anticipation. Claims 19 and 28 recite subject matter addressed above with respect to claim 8 and are allowable for similar reasons.

Therefore, Appellants respectfully request that the rejection of claims 8, 19, and 28 under 35 U.S.C. § 102(e) not be sustained.

IB(3). 35 U.S.C. § 102, Alleged Anticipation of Claims 9, 20, and 29

With respect to claim 9, again, the Final Office Action characterizes what the reference teaches and then concludes that the claimed features are taught. Appellants submit that *Kenner*, in fact, does not teach or fairly suggest determining whether data within the related set of data are at the same location as a service within the set of remaining services. The Final Office Action merely cites seemingly arbitrary portions of the reference and baldly asserts that the claimed features are taught with no analysis as to why the teachings are somehow equivalent. Therefore, the Final Office Action fails to establish a *prima facie* case of anticipation. Claims 9, 15, 20, 24, and 29 recite subject matter addressed above with respect to claim 4 and are allowable for similar reasons.

Therefore, Appellants respectfully request that the rejection of claims 9, 20, and 29 under 35 U.S.C. § 102(e) not be sustained.

CONCLUSION

In view of the above, Appellants respectfully submit that claims 1-29 are allowable over the cited prior art and that the application is in condition for allowance. Accordingly, Appellants respectfully request the Board of Patent Appeals and Interferences to not sustain the rejections set forth in the Final Office Action.

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CLAIMS APPENDIX

The text of the claims involved in the appeal reads:

1. A method of managing a set of data by a distributed set of services, comprising the steps of:

organizing the set of data into a plurality of related sets of data;

assigning, by a set of services, management of a related set of data to a service within the distributed set of services based on an optimization criteria; and

responsive to failure of a service within the distributed set of services, transferring management of the related set of data managed by the failed service to another service within the distributed set of services.

2. The method as recited in claim 1, wherein the optimization criteria is based on location of the service within the distributed set of services.

3. The method as recited in claim 1, further comprising:

detecting the failed service by a set of remaining services within the distributed set of services; and

examining, by the set of remaining services within the distributed set of services, the related set of data managed by the failed service.

4. The method as recited in claim 3, further comprising:

determining whether data within the related set of data are at the same location as a service within the set of remaining services; and

responsive to data within the related set of data at the same location as a service within the set of remaining services, attaching the data to the service.

5. The method as recited in claim 1, further comprising:

responsive to an additional service joining the distributed set of services, querying management of the data within the related sets of data; and

assigning management of a related set of data to the additional service within the distributed set of services based on the optimization criteria.

6. A method of managing a set of data by a distributed set of services, comprising the steps of:

organizing the set of data into a plurality of related sets of data;

assigning, by a set of services, management of a related set of data to a service within the distributed set of services based on an optimization criteria;

responsive to an additional service joining the distributed set of services, querying management of the data within the related sets of data; and

assigning management of a related set of data to the additional service within the distributed set of services based on the optimization criteria.

7. The method as recited in claim 6, wherein the optimization criteria is based on location of the service within the distributed set of services.

8. The method as recited in claim 6, further comprising:

detecting a failed service in the distributed set of services by a set of remaining services

within the distributed set of services; and

examining, by the set of remaining services within the distributed set of services, the related set of data managed by the failed service.

9. The method as recited in claim 8, further comprising:

determining whether data within the related set of data are at the same location as a service within the set of remaining services; and

responsive to data within the related set of data at the same location as a service within the set of remaining services, attaching the data to the service.

10. A data processing system, comprising:

a system bus;

a memory, including a set of instructions, functionally connected to the system bus; and

a processing unit functionally connected to the system bus, wherein the processing unit executes the set of instructions from the memory to organize a set of data into a plurality of related sets of data, wherein the data in each related set of data has at least one attribute between members, the processing unit assigns, by a set of services, management of a related set of data to a service within the distributed set of services based on an optimization criteria, and, responsive to a failed service within the distributed set of services, the processing unit transfers management of the related set of data managed by the failed service to another service within the distributed set of services.

11. A data processing system, comprising:

a system bus;

a memory, including a set of instructions, functionally connected to the system bus; and

a processing unit functionally connected to the system bus, wherein the processing unit executes the set of instructions from the memory to organize a set of data into a plurality of related sets of data, wherein the data in each related set of data has at least one attribute between members, the processing unit assigns, by a set of services, management of a related set of data to a service within the distributed set of services based on an optimization criteria, responsive to an additional service joining the distributed set of services, the processing unit queries management of the data within the related sets of data, and the processing unit assigns management of a related set of data to the additional service within the distributed set of services based on the optimization criteria.

12. A data processing system for managing a set of data by a distributed set of services, comprising:

organizing means for organizing the set of data into a plurality of related sets of data, wherein the data in each related set of data has at least one attribute between members;

assigning means for assigning, by a set of services, management of a related set of data to a service within the distributed set of services based on an optimization criteria; and

transferring means, responsive to a failed service within the distributed set of services, for transferring

management of the related set of data managed by the

failed service to another service within the distributed set of services.

13. The data processing system as recited in claim 12, wherein the optimization criteria is based on location of the service within the distributed set of services.

14. The data processing system as recited in claim 12, further comprising:

detecting means for detecting the failed service by a set of remaining services within the distributed set of services; and

examining means for examining, by the set of remaining services within the distributed set of services, the related set of data managed by the failed service.

15. The data processing system as recited in claim 14, further comprising:

determining means for determining whether data within the related set of data are at the same location as a service within the set of remaining services; and

attaching means, responsive to data within the related set of data at the same location as a service within the set of remaining services, for attaching the data to the services.

16. The data processing system as recited in claim 12, further comprising:

querying means, responsive to an additional service joining the distributed set of services, for querying management of the data within the related sets of data; and

assigning means for assigning management of a related set of data to the additional service within the distributed set of services based on the optimization criteria.

17. A data processing system for managing a set of data by a distributed set of services, comprising:

organizing means for organizing the set of data into a plurality of related sets of data;

assigning means for assigning, by a set of services, management of a related set of data to a service within the distributed set of services based on an optimization criteria;

querying means, responsive to an additional service joining the distributed set of services, for querying management of the data within the related sets of data; and

assigning means for assigning management of a related set of data to the additional service within the distributed set of services based on the optimization criteria.

18. The data processing system as recited in claim 17, wherein the optimization criteria is based on location of the service within the distributed set of services.

19. The data processing system as recited in claim 17, further comprising:

detecting means for detecting a failed service in the distributed set of services by a set of remaining services within the distributed set of services; and

examining means for examining, by the set of remaining services within the distributed set of services, the related set of data managed by the failed service.

20. The data processing system as recited in claim 19, further comprising:

determining means for determining whether data within the related set of data are at the same location as a service within the set of remaining services; and

attaching means, responsive to data within the related set of data at the same location as a service within the set of remaining service, attaching the data to the service.

21. A computer program product in a computer readable medium for managing a set of data by a distributed set of services, comprising:

instructions for organizing the set of data into a plurality of related sets of data;

instructions for assigning, by a set of services, management of a related set of data to a service within the distributed set of services based on an optimization criteria; and

instructions, responsive to a failed service within the distributed set of services, for transferring management of the related set of data managed by the failed service to another service within the distributed set of services.

22. The computer program product as recited in claim 21, wherein the optimization criteria is based on location of the service within the distributed set of services.

23. The computer program product as recited in claim 21, further comprising:

instructions for detecting the failed service by a set of remaining service within the distributed set of services; and

instructions for examining, by the set of remaining services within the distributed set of services, the related set of data managed by the failed service.

24. The computer program product as recited in claim 23, further comprising:

instructions for determining whether data within the related set of data are at the same location as a service within the set of remaining services; and

instructions, responsive to data within the related set of data at the same location as a service within the set of remaining services, for attaching the data to the service.

25. The computer program product as recited in claim 21, further comprising:

instructions, responsive to an additional service joining the distributed set of service, for querying management of the data within the related sets of data; and

instructions for assigning management of a related set of data to the additional service within the distributed set of services based on the optimization criteria.

26. A computer program product in a computer readable medium for managing a set of data by a distributed set of services, comprising the steps of:

instructions for organizing the set of data into a plurality of related sets of data;

instructions for assigning, by a set of services, management of a related set of data to a service within the distributed set of services based on an optimization criteria;

instructions, responsive to an additional service joining the distributed set of services, for querying management of the data within the related sets of data; and

instructions for assigning management of a related set of data to the additional service within the distributed set of services based on the optimization criteria.

27. The computer program product as recited in claim 26, wherein the optimization criteria is based on location of the service within the distributed set of services.

28. The computer program product as recited in claim 26, further comprising:

instructions for detecting a failed service in the distributed set of services by a set of remaining services within the distributed set of services; and

instructions for examining, by the set of remaining services within the distributed set of services, the related set of data managed by the failed service.

29. The computer program product as recited in claim 28, further comprising:

instructions for determining whether data within the related set of data are at the same location as a service within the set of remaining services; and

instructions, responsive to data within the related set of data at the same location as a service within the set of remaining services, for attaching the data to the service.

EVIDENCE APPENDIX

There is no evidence to be presented.

RELATED PROCEEDINGS APPENDIX

There are no related proceedings.